

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY
LETTERS OF PATENT OF THE UNITED STATES IS:

1. A heat-protection wall (2) for an exhaust-gas
5 turbine, the exhaust-gas turbine having a turbine
casing (1), a shaft (3) rotatably mounted in a bearing
housing (4), and a turbine wheel (5) arranged on the
shaft, and the heat-protection wall (2) defining with
the turbine casing (1) an inflow passage (6) leading to
10 the turbine wheel, characterized in that the heat-
protection wall has means (21, 22, 23) for centering
the turbine casing (1) relative to the shaft (3)
mounted in the bearing housing (4).
- 15 2. The heat-protection wall as claimed in claim 1,
characterized in that the heat-protection wall has at
least two seatings (21, 22) as means for centering the
turbine casing relative to the shaft, a first seating
(21) of the at least two seatings being provided for
20 resting on the bearing housing (4), and a second
seating (22) of the at least two seatings being
provided for resting on the turbine casing (1).
3. The heat-protection wall as claimed in claim 2,
25 characterized in that at least one of the first or
second seatings is designed as an encircling edge (21)
which is provided for resting on the bearing housing
(4) and/or the turbine casing (1).
- 30 4. The heat-protection wall as claimed in claim 3,
characterized in that the first and second seatings
(22, 21) are designed to be directed radially in the
same direction.
- 35 5. The heat-protection wall as claimed in either of
claims 2 and 3, characterized in that the heat-
protection wall (2) has centering lugs (23) either in
the region of the first seating (21) or in the region
of the second seating (22), which centering lugs (23)

are provided for engaging in slots (45, 15) which are set into either the bearing housing (4) or the turbine casing (1).

5 6. The heat-protection wall as claimed in either of claims 2 and 3, characterized in that slots are set into the heat-protection wall either in the region of the first seating or in the region of the second seating, which slots are provided for receiving
10 centering lugs attached either to the bearing housing or to the turbine casing.

7. A bearing housing (4) for an exhaust-gas turbine, the exhaust-gas turbine having a turbine casing (1), a
15 shaft (3) rotatably mounted in the bearing housing, a turbine wheel (5) arranged on the shaft, and a heat-protection wall (2) which, in the exhaust-gas turbine, defines with the turbine casing an inflow passage (6) leading to the turbine wheel, the heat-protection wall
20 having means (21, 22, 23) for centering the turbine casing (1) relative to the shaft (3) mounted in the bearing housing, characterized in that the bearing housing has means (41, 45) for centering the turbine casing (1) via the heat-protection wall (2) and
25 relative to the shaft (3) mounted in the bearing housing.

8. The bearing housing as claimed in claim 7, characterized in that the bearing housing, as means for
30 centering the turbine casing via the heat-protection wall and relative to the shaft mounted in the bearing housing, comprises at least one seating (41) for resting on the heat-protection wall.

35 9. The bearing housing as claimed in claim 8, characterized in that the seating of the bearing housing is designed as an encircling edge (41).

10. The bearing housing as claimed in claim 7, characterized in that the bearing housing, as means for centering the turbine casing via the heat-protection wall and relative to the shaft mounted in the bearing housing, has centering lugs which are provided for engaging in slots which are set into the heat-protection wall (2).

11. The bearing housing as claimed in claim 7, characterized in that slots (45) are set into the bearing housing as means for centering the turbine casing via the heat-protection wall and relative to the shaft mounted in the bearing housing, which slots (45) are provided for receiving centering lugs (23) attached to the heat-protection wall.

12. A turbine casing (1) for an exhaust-gas turbine, the exhaust-gas turbine having a bearing housing (4), a shaft (3) rotatably mounted in the bearing housing, a turbine wheel (5) arranged on the shaft, and a heat-protection wall (2) which, in the exhaust-gas turbine, defines with the turbine casing an inflow passage (6) leading to the turbine wheel, the heat-protection wall having means (21, 22, 23) for centering the turbine casing (1) relative to the shaft (3) mounted in the bearing housing, characterized in that the turbine casing has means (11, 15) for centering the turbine casing (1) via the heat-protection wall (2) and relative to the shaft (3) mounted in the bearing housing.

13. The turbine casing as claimed in claim 12, characterized in that the turbine casing, as means for centering the turbine casing via the heat-protection wall and relative to the shaft mounted in the bearing housing, comprises at least one seating (11) for resting on the heat-protection wall (2).

14. The turbine casing as claimed in either of claims 12 and 13, characterized in that the turbine casing, as means for centering the turbine casing via the heat-protection wall and relative to the shaft mounted in the bearing housing, has centering lugs which are provided for engaging in slots which are set into the heat-protection wall (2).

15. The turbine casing as claimed in claim 12, characterized in that slots (15) are set into the turbine casing as means for centering the turbine casing via the heat-protection wall and relative to the shaft mounted in the bearing housing, which slots (15) are provided for receiving centering lugs (23) attached to the heat-protection wall.

16. An exhaust-gas turbine having a turbine casing (1), a shaft (3) rotatably mounted in a bearing housing (4), a turbine wheel (5) arranged on the shaft, and a heat-protection wall (2) as claimed in one of claims 1 to 6, the heat-protection wall defining with the turbine casing an inflow passage (6) leading to the turbine wheel.

17. The exhaust-gas turbine as claimed in claim 16, characterized in that the heat-protection wall (2) contains a material which has a higher coefficient of thermal expansion than the material of the turbine casing (1).

18. An exhaust-gas turbine having a turbine casing (1), a shaft (3) rotatably mounted in a bearing housing (4), a turbine wheel (5) arranged on the shaft, and a heat-protection wall (2) as claimed in claim 4, the heat-protection wall defining with the turbine casing an inflow passage (6) leading to the turbine wheel, characterized in that an encircling edge (41) for resting on the encircling edge (21) of the heat-

protection wall is provided on the bearing housing and/or on the turbine casing.

19. An exhaust-gas turbine having a turbine casing
5 (1), a shaft (3) rotatably mounted in a bearing housing
(4), a turbine wheel (5) arranged on the shaft, and a
heat-protection wall (2) as claimed in claim 5, the
heat-protection wall defining with the turbine casing
10 an inflow passage (6) leading to the turbine wheel,
characterized in that slots which are provided for
receiving the centering lugs (23) attached to the heat-
protection wall are set into either the bearing housing
(4) or the turbine casing (1).

15 20. An exhaust-gas turbine having a turbine casing
(1), a shaft (3) rotatably mounted in a bearing housing
(4), a turbine wheel (5) arranged on the shaft, and a
heat-protection wall (2) as claimed in claim 6, the
heat-protection wall defining with the turbine casing
20 an inflow passage (6) leading to the turbine wheel,
characterized in that centering lugs which are provided
for engaging in the slots which are set into the heat-
protection wall are arranged either on the bearing
housing (4) or on the turbine casing (1).